



U. S. Department of Agriculture
Forest Service
Southeastern Area
State & Private Forestry

FOREST PEST MANAGEMENT

Report No. 82-3-42

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AERIAL DETECTION SURVEY OF FOREST INSECT AND DISEASE ACTIVITY, FRANCIS MARION NATIONAL FOREST, SOUTH CAROLINA

LAND OWNERSHIP OR SURVEY AREA: Francis Marion National Forest

STATE: South Carolina

AREA WITHIN SURVEY BOUNDARY: 414,700 acres

DATE: August 31, 1982

PERCENT COVERAGE: 100%

AIRCRAFT: Cessna 206

CREW: E.T. Wilson & T. Gentry

SURVEY OBJECTIVES

The objective of this survey was to detect the presence and location of forest insect and disease activity affecting the timber resources on the Francis Marion National Forest.

SURVEY RESULTS

A total of 71 spots of dead and dying pine trees were detected (Table I), thirty percent of the spots were 26 trees in size or larger. The pine mortality on the Francis Marion National Forest is suspected to be caused by the southern pine beetle, Dendroctonus frontalis Zimm.. Seven thousand acres of defoliation of hardwood trees were observed and mapped during the survey (Figure I). Reports from the South Carolina State Forestry Commission have identified the forest tent caterpillar, Malacosoma disstria, and tentatively identified the white marked tussock moth, Hemerocampa leucostigma, as the causal agents responsible for the defoliation. Maps showing the infestations have been compiled and sent to the Witherbee and Wambaw Ranger District Offices for their information.

CONCLUSIONS

Southern pine beetle activity has increased dramatically since the previous surveys of November 1981, #81-3-27, where the beetle spots ranged from 1-10 trees in size. Defoliation resulting from the forest tent caterpillar which occurred in 1982 is part of a larger outbreak along the entire coastal area of South Carolina.

The Asheville office of Forest Pest Management has been advised of the southern pine beetle outbreak on the Francis Marion National Forest. A biological evaluation is in progress.

For additional information, contact:

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Table I - Summary of Aerial Survey Data, Francis Marion National Forest, Witherbee & Wambaw Districts, August 1982

Witherbee District						
Number of red & fading trees by spot size						
Land Ownership	3 - 5 Trees	6 - 10 Trees	11 - 25 Trees	26 - 50 Trees	51 - 75 Trees	75+ Trees
	Spots	Spots	Spots	Spots	Spots	Spots
Private	2	1	5	4	0	0
Federal	6	6	7	6	2	0
Total	8	7	12	10	2	0
Wambaw District						
Private	1	1	1	4	1	0
Federal	10	1	5	4	4	0
Total	11	2	6	8	5	0

